Electronic Version
Stylesheet Version v1.1.1

Claims

[c1] 1.A drive nut device comprising: a drive nut body having a desired shape and further having two ends; one end having a bore for mounting to a seat movement member; and the other end having a drive nut formed as an integral part thereof, said drive nut having a threaded bore passing through the longitudinal axis of said drive nut.

[c2] 2.The drive nut device as claimed in Claim 1 wherein, said drive nut device is comprised of sheet steel.

[c3] 3.The drive nut device as claimed in Claim 2 wherein, said sheet steel is from about 0.5 mm to about 4.0 mm thick.

[c4] 4.The drive nut device as claimed in Claim 1 wherein, said drive nut having a longitudinal length suitable to prevent undesired non-longitudinal axis movement of said drive nut device.

[c5] 5.A vertical drive nut device comprising: a drive nut body having a desired shape and further having two ends; one end having a bore for mounting to a seat vertical movement member; and the other end having a drive nut formed as an integral part thereof, said drive nut having

a threaded bore passing through the longitudinal axis of said drive nut.

[c6] 6.The vertical drive nut device as claimed in Claim 5 wherein, said drive nut body has a generally L-shape.

[c7] 7.The vertical drive nut device as claimed in Claim 5 wherein, said vertical drive nut device is comprised of sheet steel.

[c8] 8.The vertical drive nut device as claimed in Claim 7 wherein, said sheet steel is from about 0.5 mm to about 4.0 mm thick.

[c9] 9.The vertical drive nut device as claimed in Claim 5 wherein, said drive nut longitudinal axis is substantially at a right angle to said bore for mounting to a seat vertical movement member.

[c10] 10.The vertical drive nut device as claimed in Claim 5 wherein, said drive nut having a longitudinal length suitable to prevent undesired non-longitudinal axis movement of said vertical drive nut device.

[c11] 11.A process for making a vertical drive nut device having an integral drive nut comprising the steps of:
a) extruding a drive nut body in a piece of material having desired dimensions;

b) forming a threaded bore thorough the longitudinal axis of the extruded drive nut step a; and

c) stamping a desired shape into said piece of sheet steel,

thereby forming a vertical drive nut device for use in the vertical movement apparatus of a power seat adjuster.

[c12] 12.The process as claimed in Claim 11 wherein, said piece of material is sheet metal.

[c13] 13.The process as claimed in Claim 12 wherein, said sheet metal has a thickness of from about 0.5 mm to about 4.0 mm.

[c14] 14.The process as claimed in Claim 11 wherein, said drive nut body thickness is increased during said extrusion step by from about 50 percent to about 85 percent of the nominal material thickness.

[c15] 15.The process as claimed in Claim 11 wherein, said drive nut device is a vertical drive nut device.

[c16] 16.The process as claimed in Claim 15 wherein, said vertical drive nut device is produced from sheet metal.

[c17] 17.The process as claimed in Claim 16 wherein, said sheet metal has a thickness of from about 0.5 mm to about 4.0 mm.

[c18] 18.The process as claimed in Claim 15 wherein, the vertical drive nut body thickness is increased during said extrusion step by from about 50 percent to about 85 percent of the nominal material thickness.

[c19] 19.The process as claimed in Claim 15 wherein, the vertical drive nut body has a longitudinal length substantially sufficient to prevent sideways movement of said vertical drive nut device during use.

[c20] 20.The product of the process of Claim 15 wherein, the vertical drive nut device is produced in a single operation of multiple steps without the need for manual alignment of the drive nut body within the vertical drive nut device.